

### REMARKS

Claims 1-67 are pending in the application, with claims 1, 27, 40, 60, 61, and 64-67 being independent claims.

Presently, claims 1-67 stand rejected as obvious under 35 U.S.C. §103(a) in view of Knight et al., Optics Letters, Vol. 21, No. 19, October 1, 1996 ("Knight").

With respect to independent claims 1 and 27, the action admits that "Knight does not explicitly disclose measuring light reflected from within the fiber," but states "the claimed limitation would have been obvious according to the characteristic of the photonic fiber" (Office Action, page 1, third paragraph).

We disagree that the claims are obvious in view of Knight. Moreover, the Examiner's statement is conclusory and does not meet the standard for obviousness. The action provides no basis that the claimed limitation would have been obvious according to the characteristic of the photonic fiber. Nor could we find any basis for this conclusion in Knight. Indeed, it is not even clear which "characteristic" the action refers to.

We remind the Examiner that, according to the MPEP, the requirements for establishing a *prima facie* case of obviousness include that there be "some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference" (MPEP §2143). Moreover, "the prior art reference ... must teach or suggest all the claim limitations" (*id.*). Knight fails to meet either of these requirements.

For example, independent claim 1 is directed to methods that require "detecting measurement light reflected from within [a] photonic crystal fiber in response to ... test light," and "determining information about a defect within the photonic crystal fiber according to the measurement light."

Nowhere does the action indicate the existence of any suggestion to modify Knight's methods to include "detecting measurement light reflected from within [a] photonic crystal fiber ...." Knight certainly provides no such suggestion or motivation. To the contrary, Knight teaches detecting only light transmitted by a fiber (Knight, p. 1548, col. 1, second paragraph), not reflected light. In fact, Knight teaches away from detecting light reflected from within his

fiber because Knight is interested in investigating the guidance properties of his fiber, which requires looking at transmitted light (id.).

The fact that a reference can be modified to provide the claimed invention is not sufficient to establish *prima facie* obviousness (MPEP 2143.01, In re Mills, 916 F.2d 680, 16 USPQ2d 1430 (Fed. Cir. 1990)). The prior art must suggest the desirability of the claimed invention (MPEP 2143.01), and no such suggestion exists in this case.

Furthermore, there are limitations in the claims that are not taught or suggested by Knight. For example, Knight does not teach or suggest “determining information about a defect within the fiber from the [reflected light],” as required by claim 1. To the extent that Knight determines information about defects in his fiber, it is by observing breaking of the expected symmetry of the light-field patterns in photographs which are made from light transmitted by the fiber (Knight, p. 1549, first paragraph). The action does not point to anything in Knight that suggests that one could determine information about a defect in a fiber from reflected light. Nor could we find any such suggestion. To the contrary, Knight suggests determining information about defects in his fiber from transmitted light.

Finally, with regard to the other independent claims (i.e., claims 40, 60, 61, and 64-67), the action rejects each of them on the same basis as various claims dependent from claim 1. The action does not even bother to acknowledge differences between these independent claims and the dependent claims to which it refers, let alone indicate a basis for rejecting each claim in view of Knight. Accordingly, we submit that the action has failed to present a *prima facie* case of obviousness in its rejection of claim 40, 60, 61, and 64-67, and we request that the rejection of these claims in view of Knight be withdrawn.

We ask the Examiner to withdraw the prior art rejection of independent claims 1, 40, 60, 61, and 64-67. Furthermore, we submit that all other pending claims, which were rejected for the same reasons as claim 1, are allowable for at least the same reasons as claim 1, and we ask that the rejection of these claims under 35 U.S.C. §103(a) also be withdrawn.

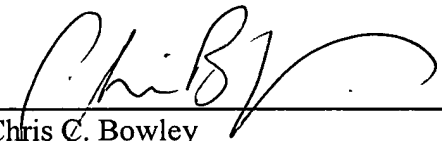
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Enclosed is a \$55.00 check for the Petition for Extension of Time fee. Please apply any other charges or credits to deposit account 06-1050, referencing Attorney Docket No. 13445-006001.

Respectfully submitted,

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